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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/560,446

12/13/2005

Ralf Muehlhausen

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27799

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12/24/2008

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EXAMINER

FREAY, CHARLES GRANT

ART UNIT

PAPER NUMBER

3746

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/560,446	<b>Applicant(s)</b> MUEHLHAUSEN ET AL.	
	<b>Examiner</b> Charles G. Freay	<b>Art Unit</b> 3746	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 September 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4,6-12 and 14-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4,6-12 and 14-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/2008</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 22, 2008 has been entered.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-4, 6-12 and 14-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims, particular the independent claims, set forth that the shaft has "a flattening at one end which includes a shoulder". It is unclear if the flattening is part of the shaft or if it is part of the defined area of the flattening (for example, the edges of the flattening). The specification at page 3 line 9 sets forth that the shaft has a shoulder 11 and the drawing seems to show that the reference numeral 11 is the area surrounding the flattening. It is unclear what the exact structure of the flattening is.

Claim 19 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 19 is vague and indefinite because in the last line the "electric motor" is not positively claimed and therefore it is unclear if the motor is intended to further limit the claim. Furthermore, the motor is not structurally associated with the rest of the pump.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

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were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-4, 6, 9-12, 14, 15, 16, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer et al (USPN 6,402,460) in view of Tuckey (USPN 5,122,039) and further in view of Shelhart (USPN 3,244,111).

As set forth in the previous office action Fischer et al disclose an electric motor driven rotary fuel pump including an impeller 28 arranged between a bottom 36 having an outlet 45 and a cover 34. Wherein the bottom and the cover are manufactured from plastics (col. 3/24-27) and are separated by a spacer 48. In addition, the pump comprises an electric motor 30 having a shaft 29 with a flat thereon (Fig. 2). Fischer et al do not specifically discuss the inlet being in the cover, a G-rotor, the shoulder or disclose the shoulder being within an area of the G-rotor between the bottom and the cover. Tuckey disclose an electric motor driven G-rotor pump 46, 48 having a spacer (near 44) integral with a cover 42. Tuckey does not disclose a flattening or a shoulder in the area of the G-Rotor. Shelhart also discloses a G-rotor 36 pump having a cover with an integral spacer 16. The shaft 28 has a flattening (see fig. 1) with a shoulder which is in the area between the cover and a bottom. At the time of the invention it would have been obvious to one of ordinary skill in the art to replace the impeller in the fuel pump of Fischer et al with a g-rotor pump as taught by Tuckey to reduce pressure pulsations

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(col. 1/60-65). It also would have been obvious to one of ordinary skill in the art to provide the shaft with a flattening and shoulder as taught by Shelhart in order to provide a simple means for assembling and disassembling the G-rotor to the shaft in a specific orientation and position. Furthermore, it would have been obvious to one of ordinary skill in the art to have made the spacer integral with the cover as taught by each of Shelhart to reduce the number of parts and since it has been held that making a part in one piece which has formerly been made by multiple pieces involves only routine skill in the art. In re Larson, 340 F.2d 965, 968, 144 USPQ 347, 349.

In re claim 14 while Fischer et al does not specifically disclose the inlet in the bottom of cover this in fact would be the most logical and likely place for the un-illustrated inlet of Fischer et al given that it is a submersible pump. However, Shelhart specifically discloses the inlet 46 being in the cover and one of ordinary skill would have placed it there in order to place the inlet of the submersible pump at the lowest point possible.

With re claims 15 and 16, one of ordinary skill in the art would find it obvious, having the cover and bottom mounted within a housing such as Fischer et al's, to provide a certain amount of prestressing in order to eliminate leakage between the pump casing parts.

Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer et al in view of Tuckey and Shelhart as applied to claims 1 and 4 above, and further in view of Schelhas et al.

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As set forth above Fischer et al in view of Tuckey and Shelhart discloses the invention substantially as claimed but lacks the teaching of a coating.

Schelhas et al teach a coating on a cover and bottom (col. 3/20-25).

At the time of the invention it would have been obvious to one of ordinary skill in the art to provide either the cover or the bottom of Fischer et al with a coating as taught by Schellas merely to increase the wear resistance of the parts.

Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer et al in view of Tuckey and Shelhart as applied to claims 1 and 4 above, and further in view of Harris et al (USPN 20030039539).

As set forth above Fischer et al in view of Tuckey and Shelhart discloses the invention substantially as claimed but lacks the teaching of a pumping member made of ceramic. Harris et al teach an impeller made of ceramic material (par. 9). At the time of the invention it would have been obvious to one of ordinary skill in the art to have made the pumping member of ceramic as taught by Harris et al to provide a durable corrosion resistant material for the pumping member.

### ***Response to Arguments***

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Erickson et al and Schmidt et al disclose g-rotor pumps with shafts having flats and shoulders.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles G. Freay whose telephone number is 571-272-4827. The examiner can normally be reached on Monday through Friday 8:30 A.M. to 5:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Devon Kramer can be reached on 571-272-7118. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Charles G Freay/  
Primary Examiner  
Art Unit 3746

CGF  
December 19, 2008